

Distance Education in Agricultural Education¹ Ali Badragheh, ² Mohammad Abedi^{1,2} Department of Environment, Damavand Branch, Islamic Azad University, Damavand, Iran*Corresponding author: abedi114@yahoo.com

Abstract: Distance education places students and their instructors in separate locations using some form of technology to communicate and interact. The student may be located in the classroom, home, office or learning center. The instructor may be located in a media classroom, studio, office or home. The student may receive information via satellite, microwave, or fiber optic cable, television (broadcast, cable or Instructional Television Fixed Services (ITFS), video cassette or disk, telephone - audio conferencing bridge or direct phone line, audio cassette, printed materials - text, study guide, or handout, computer - modem or floppy disk, and compressed video. Recent rapid development of technology has resulted in systems that are powerful, flexible, and increasingly affordable. The base of available information technology resources is increasing with dramatic speed. Much has been learned about connecting various forms of technology into systems, so that the ability to link systems is growing. Most distance learning systems are hybrids, combining several technologies, such as satellite, ITFS, microwave, cable, fiber optic, and computer connections.

[Ali Badragheh and Mohammad Abedi. **Distance Education in Agricultural Education**. Journal of American Science. 2011;7(4):289-294]. (ISSN: 1545-1003). <http://www.americanscience.org>.

Keywords: Distance Education, Agricultural Education

Introduction:

enjoying and giving publicity to any of technological tools with the aim to facilitate and accelerate the training process, as well as increase the quality and quantity of knowledge quality and knowledge of a serious intelligence community needs to integrate and standardize the educational system society is.

Hence, considering the position and role of education in the third millennium on the basis of ICT is also a serious approach to the topic with the knowledge community centered on learning and general trends of technological tools to enjoy much of the information and Find the appropriate place in the information society Third Millennium That actually can be a global community and is without limit is undeniable-and-run. Guidance and therefore move in the direction of society should be education and technology for comprehensive pandemic done. Considering the above definitions and with the knowledge and attitudes towards the third millennium and the desirability and some weaknesses in the achievement of certain standards and dynamic structures in order to achieve a knowledge based society, there is. In the present circumstances to provide our information infrastructure development and integration inevitably link the elements and tools that they are as indicators of technology education and technology education will be remembered. In the new context of combining these two indicators comes to training facilities and a variety of tools that will provide guidance and development in information will be very effective.

While the effect of these two indices of body functions and its other fields (favorable to foster new ideas provides. Technologies training web-based

technology as one of the most effective learning tools in educational issues have been identified and a total of E-learning as it is referred. . But if the scientific and cultural infrastructure with this technology's Day is not coordinated development of information will be obtained. This weakness caused by lack of growth and development of training required for pandemic knowledge of existing technology is. In many systems of scientific tools and capabilities needed to provide hardware and commissioning are still technological problems resulting from lack of knowledge of poverty and poor education in these centers to be seen.

In other words, the country still in the feasibility assessment and appropriate to make public the necessary training for operation and application of scientific principles and technological tools is has been done and why certain movements and sometimes non-normative point will not be able node an unlock.

The conditions and according to the capacity of developing countries and training facilities required a knowledge-based society feels is felt. If all processes in technology education and technology optimization and standardization of the Hungarian education should go, and appropriate channels that the best option in this area could benefit from state universities is capabilities.

According to the information in the development of any society should take half of the world to progress until the necessary coordination and synchronization global developments so as to accept the design structure of a knowledge-based society have a special place for the University and respect the role of

education and technology was In designing a model with global standards of dynamism and flexibility at first be necessary to select a sample that the facilities and communications needed for this purpose provide action and then determine optimal cognitive deficiencies than Hammett and weaknesses push.

No doubt the experiences of implementing these standards and to develop troubleshooting information using technological tools would be much more economical. That if we develop a range of information from a city university level and conduct more successful we'll be more acceptable was. Because the utilization and application tools and step up the information they've been successful. Therefore the most important first step needed to coordinate and synchronize technology education and educational technology standards and capability in the high user acceptability of the world is also enjoyed.

Benefits of Distance Learning:

Benefits and opportunities that distance education provides, include:

- training a wide range of audiences.
- meet the needs of students and students who can not attend in place.
- Possible connection between students and students with cultures, beliefs and experiences are different.
- Benefiting from coaches and speakers who do not live in the country.

Educational methods in distance learning:

Today, under the new system replaced the traditional systems of learning and learning week (ie tutoring methods, lectures) are:

- Multimedia courses:

These courses and widely used elements of image, communication, graphics and simulated components, animation and communication elements for guidance and tips, and talk back on course and curriculum issues are held.

- Enhanced communication mechanisms:

The mechanism of any texts simultaneously, and asynchronous audio-visual communications to protect you. This case allows students to practice on topics learned will give.

- Written test:

thus, question and test via a distributed communication network, are corrected and returned. These exams through video conferencing support and runs.

-Virtual Seminar:

thereby different groups of students in different geographical environments linked together makes.

- Collaborative virtual laboratories:

the laboratory of the Group's activities are supported. Workshops such as software engineering.

-Smart academic factors:

academic factors that inform intelligent, support and guidance students pay.

Remote educational tool:

distance learning tools and supplies various uses. These tools in four main courses are:

A - Audio Tools:

Audio tools include training such as two-way interactive telephone, video conference, shortwave radio and a strain of tools such as audio tape and radio.

B - Image tools:

including slides, films, video tapes and video conferences.

C - Data:

computers as electronic data are sent and received. Because the data word description for a wide range of educational tools is used.

Computer applications for distance education are varied and include the following:

- 1- Training to Computer Management.
- 2 - Computer Assisted Instruction.
- 3 - through PCs.
- 4 - e-mail, telegraph, computer conference and the World Wide Web simultaneously.

D - Print:

The main element of distance education programs, particularly in the exchange and delivery system information tools are considered.

Key factors in the process of distance education:

the process of remote training, the following factors contribute:

- Students:

Regardless of educational content, role and main element in the learning process students are responsible.

- Coaches and Teachers:

Success depends on a lot of educational activities the ability, skills and knowledge are the coaches and professors.

- Facilitators of communication:

Facilitator bases, as the bridge between students and mentors are. Must base expectations of teachers and educational needs of students and service coordination and communication to create.

- Support staff:

One of the important pillars of any development of distance education programs, by development group finds. Operational support staff such as student

registration, copy and distribute their resources, order textbooks, security and copyright, and are responsible for the report.

- Management:

The group decision makers, builders and judges are considered to be educational and should be considered among the factors above, establish the correct relationship formation.

FORMS OF DISTANCE EDUCATION

In its original form, teachers using distance education traveled to remote sites and taught a class, or corresponded with students through mail, telephone, or fax machine. Individualized study has been a method of reaching the remote student for some time. Detailed course instructions are sent to the learner who performs the assigned tasks and returns the completed work to the teacher for evaluation and reassignment if necessary.

Technology has raised the quality of individualized distance instruction. The use of various forms of electronic media increases time effectiveness and improves the delivery of information. Video, audio, and computer-based applications may enhance the product received by the independent learner. Electronic delivery can occur using synchronous communication, in which class members participate at the same time, or asynchronous communication where participants are separated by time (Romiszowski, 1993).

Video/audio models of distance education include broadcast television, cable television, satellite, microwave, fiber optics, and audio graphics. The most widely used format is broadcast and cable television (Parrott, 1995). However, developments in satellite and fiber optic systems have produced other successful programs. The interactive capability of many of these networks has produced a distance classroom that is nearly identical to a regular classroom. Teachers and students can interact through both two-way video and one-way video with two-way audio systems. The recent development of Desktop Video Conferencing (DVC) which brings interactive video capability to the desktop computer, further enhances learning opportunities.

The linking of computer technology through the use of the Internet or CD-ROM with television transmission provides a potentially new dimension to distance education. This technique can link university

professors to high school teachers, or to physically disabled students, in a distance setting (McLean, 1996).

Another form of interaction is the use of computer conferencing. This method utilizes asynchronous communication in such forms as an e-mail list group, an Internet discussion group, or other types of conferencing software. Asynchronous methods of communication are especially appealing to the learner who has difficulty scheduling specific time- and place-bound course work.

Conclusion:

Distance education delivers classes (live or pre-taped) to students in their home, office, or classroom. It is used by K-12, higher education, continuing education and business. As the cost of delivering quality education increases, institutions find that limited resources prevent them from building facilities, hiring faculty, or expanding curricula. They are using distance education to maximize resources and are combining their assets with others to produce programming. Distance education is offered internationally, nationally, regionally, and locally over all forms of conferencing technology.

Distance learning is expanding and examples of it are increasing dramatically. Fewer than 10 states were using distance learning in 1987; today, virtually all states have an interest or effort in distance education. Distance learning systems connect the teacher with the students when physical face-to-face interaction is not possible. Telecommunications systems carry instruction, moving information instead of people. The technology at distant locations are important and affect how interaction takes place, what information resources are used, and how effective the system is likely to be.

Technology transports information, not people. Distances between teachers and students are bridged with an array of familiar technology as well as new information age equipment. What sets today's distance education efforts apart from previous efforts is the possibility of an interactive capacity that provides learner and teacher with needed feedback, including the opportunity to dialogue, clarify, or assess. Advances in digital compression technology may greatly expand the number of channels that can be sent over any transmission medium, doubling or even tripling channel capacity. Technologies for learning at a distance are also enlarging our definition

of how students learn, where they learn, and who teaches them. No one technology is best for all situations and applications. Different technologies have different capabilities and limitations, and effective implementation will depend on matching technological capabilities to education needs.

Distance education places students and their instructors in separate locations using some form of technology to communicate and interact. The student may be located in the classroom, home, office or learning center. The instructor may be located in a media classroom, studio, office or home.

The student may receive information via satellite, microwave, or fiber optic cable, television (broadcast, cable or Instructional Television Fixed Services (ITFS), video cassette or disk, telephone - audio conferencing bridge or direct phone line, audio cassette, printed materials - text, study guide, or handout, computer - modem or floppy disk, and compressed video. Recent rapid development of technology has resulted in systems that are powerful, flexible, and increasingly affordable. The base of available information technology resources is increasing with dramatic speed. Much has been learned about connecting various forms of technology into systems, so that the ability to link systems is growing. Most distance learning systems are hybrids, combining several technologies, such as satellite, ITFS, microwave, cable, fiber optic, and computer connections.

Interactivity is accomplished via telephone (one-way video and two-way audio), two-way video or graphics interactivity, two-way computer hookups, two-way audio. Interactivity may be delayed but interaction provided by teacher telephone office hours when students can call or through time with on-site facilitators. Classes with large numbers of students have a limited amount of interactivity. Much of the activity on computer networks is on a delayed basis as well. Possibilities for audio and visual interaction are increasingly wide.

In the earlier days of distance learning, it was most common to see distance learning used for rural students who were at a distance from an educational institution. The student might watch a telecourse on a television stations, read texts, mail in assignments and then travel to the local college to take an exam. This model is still in use, but as the technology has become more sophisticated and the cost of distance learning dropped as equipment prices dropped, the use of distance education has increased.

High front-end costs prevented an early widespread adoption of electronically mediated learning. Distance learning has been aggressively adopted in many areas because it can meet specific educational needs. As the concept of accountability became accepted and laws required certain courses in high school in order for students to be admitted to state colleges, telecommunications was examined as a way to provide student access to the required courses. Many rural school districts could not afford the special teachers to conduct required courses. Distance education met this need by providing courses in schools where teachers were not available or were too costly to provide for a few students. It also fulfilled a need for teacher training and staff development in locations where experts and resources were difficult to obtain. These systems link learner communities with each other and bring a wide array of experts and information to the classroom.

Challenges which faced the early users of distance education are still with us today. If distance education is to play a greater role in improving the quality of education, it will require expanded technology; more linkages between schools, higher education, and the private sector; and more teachers who use technology well. Teachers must be involved in planning the systems, trained to use the tools they provide, and given the flexibility to revise their teaching. Federal and state regulations will need revision to ensure a more flexible and effective use of technology. Connections have been established across geographic, instructional, and institutional boundaries which provide opportunities for collaboration and resource sharing among many groups. In the pooling of students and teachers, distance learning reconfigures the classroom which no longer is bounded by the physical space of the school, district, state or nation.

The key to success in distance learning is the teacher. If the teacher is good, the technology can become almost transparent. No technology can overcome poor teaching which is actually exacerbated in distance education applications. When skilled teachers are involved, enthusiasm, expertise, and creative use of the media can enrich students beyond the four walls of their classroom.

Teachers need training in the system's technical aspects and in the educational applications of the technology. Areas for assistance include the amount of time needed to prepare and teach courses, how to establish and maintain effective communication with students, strategies for adding visual components to

audio courses, ways to increase interaction between students and faculty, planning and management of organizational details, and strategies for group cohesion and student motivation.

The interchange of ideas requires different communication methods than in conventional classrooms: information technologies are predominantly visual media, rather than the textual and auditory environment of the conventional classroom, the affective content of mediated messages is muted compared to face-to-face interaction, and complex cognitive content can be conveyed more readily in electronic form because multiple representations of material (e.g., animations, text, verbal descriptions, and visual images) can be presented to give learners many ways of understanding the fundamental concept.

***Corresponding Author:**

Mohammad Abedi

Department of Environment, Damavand Branch,
Islamic Azad University, Damavand, Iran

E-mail: abedi114@yahoo.com

References:

1. Alharthi, Mohammad A (2003). a High quality portal frame work for asynchronous learning networks: intellectual capital aggregation and organization, doctorate thesis, Vanderbilt university.
2. Allison. chlin.& others (2002). an integrated framework for distributed learning environments.
3. Almogbel. Ali N (2002). distance education in Saudi Arabia: attitudes and perceived contributions of faculty, students, and administrators in technical college, doctorate thesis, university of Pittsburgh.
4. Al-saleh, Mary Margaret (2002). a description and comparision of RN_ BSN Nursing student, perception of student _ teacher relationships in traditional and internet distance education nursing courses. DNSC, widener university school of nursing .
5. Ananyous (2001). history of distance education and training council (75 years). Distance education and training council washington.
6. Armstrong, Amy Jo (2002). an investigation of personal – social contextual factors of the online adult learner: perceived ability to complete and succed in a program of study. Doctorate Thesis, Virginia commonwealth university.
7. Barron, D (1996). Distance education in north American library and information science education: Application technology and commitment. journal of the Ameraican society for information science. Vol.47 ,No.11.
8. Bates,T (1995) .Technology, open learning and distance education London:Routledge.
9. Beetham. H., & Sharpe, R. (eds.) (2007). *Rethinking pedagogy for a digital age: Designing and delivering e-learning*. London: Routledge.
10. Boltone , sharon Bauer (2002). Developing an instrument to Analze the application of adult learning principles to world wide web distance education courses using the Delphi technique. EdD.university of lousville.
11. Bonk, C., & Graham, C. (eds.). (2006). *Handbook of blended learning: Global perspectives, local designs (pp. xvii - xxiii)*. San Francisco: Pfeiffer.
12. Carter , A (2001). Interactive distance education: implication for adult learner, Interautional Media, 28(3), PP: 249-261.
13. Chizari, M, Mohammad ,H and linder ,J.R (2002). Distance education competencies of Faculty members in Iran
14. Crossfield, N. L. (2001, May/June). Digital reference: the next new frontier. *Latitudes*, 10(3). Retrieved July 16, 2005, from <http://nml.gov/psr/lat/v10n3/digitalref.html>
15. Dodds, T., Perraton, H., & Young, M. (1972). *One year's work: The International Extension College 1971-1971*. Cambridge, UK: International Extension College.
16. Faulhaber, C. B. (1996). Distance learning and digital libraries: Two side of a single coin. *Journal of the American Society for Information Science* 47(11), 854-856.
17. Gandhi, S. (2003). Academic librarians and distance education challenges and opportunities. *Reference & User Services Quarterly*, 43(2), 138-154.
18. Garrels, M. (1997). Dynamic relationships: Five critical elements for teaching at a distance. Faculty Development Papers. Available online at: Indiana Higher Education Telecommunication System (http://www.ihets.org/distance_ed/fdpapers/1997/garrels.htm l).
19. Garrison, D. R.; H. Kanuka (2004). Blended learning: Uncovering its transformative

- potential in higher education. *The Internet and Higher Education* 7 (2), 95-105.
20. Garrison, R., & Vaughan, N. (2008). *Blended learning in higher education: Framework, principles, and guidelines*. San Francisco: Jossey-Bass.
 21. Garrison, J. A., Schardt, C., & Kochi, J. K. (2000). web – based distance continuing education: a new way of thinking for students and instructors. *Bulletin of the Medical Library Association*, 88(3), 211-217.
 22. Grimes, G. (1992). Happy 100th anniversary to distance education. Retrieved August 25, 2005, from [http://www.macul.org/newsletter/1992/nov,dec 92/going.html](http://www.macul.org/newsletter/1992/nov,dec%20going.html)
 23. Husler, R. P. (1996). Digital library: content preservation in digital world. *DESIDOC-Bulletin of Information Technology*, 16(1), 31-39.
 24. Jeffres, M. Research in distance education. Retrieved August 20, 2005, from <http://www.ihets.org/distance-/ipse/fdhandbook/research.html>
 25. Katsirikou, A., & Sefertzi, E. (2000). Innovation in the every day life of library. *Technovation*, 20(12), 705-709.
 26. Lebowitz, G. (1997). Library service equity issue. *The Journal of Academic Librarianship*, 23(4), 303-308.
 27. Lipow, A. G. (1999, January 20). Serving the remote user: reference service in the digital environment. In *Proceedings of the ninth Australasian information online & on disc conference and exhibition*.
 28. Littlejohn, A., & Pegler, C. (2007). *Preparing for blended e-learning*. London: Routledge.
 29. McLean, D. D. (1996). Use of computer-based technology in health, physical education, recreation, and dance. ERIC Digest 94-7. Washington, DC: ERIC Clearinghouse on Teaching and Teacher Education. ED 390 874.
 30. Moore, M. (ed.). (2007). *Handbook of distance education*. New Jersey: Lawrence Erlbaum Associates.
 31. Oliver, M., & Trigwell, K. (2005). Can blended learning be redeemed? *Elearning*, 2 (1), 17-26.
 32. Parrott, S. (1995). Future learning: Distance education in community colleges. ERIC Digest 95-2. Los Angeles, CA: ERIC Clearinghouse on Community Colleges. ED 385 311
 33. Rintala, J. (1998). Computer technology in higher education: An experiment, not a solution. *Quest*, 50(4), 366-378. EJ 576 392
 - Romiszowski, A. (1993). Telecommunications and distance education. ERIC Digest 93-2. Syracuse, NY: ERIC Clearinghouse on Information Resources. ED 358 841
 34. St. Pierre, P. (1998). Distance learning in physical education teacher education. *Quest*, 50(4), 344-356. EJ 576 391
 35. Strain, J. (1987). The role of the faculty member in distance education. *American Journal of Distance Education*, 1 (2).
 36. Summers, M. (1997). From a distance: Or, how I learned to love my "tv" class. Faculty Development Papers. Available online at: Indiana Higher Education Telecommunication System (http://www.ihets.org/distance_ed/fdpapers/1997/summers.html).

3/28/2011